UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,826	07/07/2004	David Attwater	36-1829	8492

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EXAMINER
SAINT CYR, LEONARD

ART UNIT	PAPER NUMBER
2626	

MAIL DATE	DELIVERY MODE
11/30/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/500,826	ATTWATER ET AL.
	Examiner	Art Unit	
	LEONARD SAINT CYR	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 August 2009*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5, 7 - 11,13-27, 29 -33 and 35-46* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5, 7 - 11,13-27, 29 -33 and 35-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 July 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Re-open Prosecution after Appeal Brief

1.   In view of the supplemental appeal brief filed on 08/19/09, PROSECUTION IS

HEREBY REOPENED. A new ground of rejection is set forth below.

        To avoid abandonment of the application, appellant must exercise one of the

following two options:

        (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply

under 37 CFR 1.113 (if this Office action is final); or,

        (2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed

by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and

appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth

in 37 CFR 41.20 have been increased since they were previously paid, then appellant

must pay the difference between the increased fees and the amount previously paid.

        A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by

signing below.

        /Richemond Dorvil/
        Supervisory Patent Examiner, Art Unit 2626

Response to Arguments

2.   Applicant's arguments with respect to claims 1 - 5, 7 – 11, 13 – 27, 29 -33, and

35 - 46 have been considered but are moot in view of the new ground(s) of rejection.

Appellants argue that Coffman does not teach means for establishing a user preference value for each input and output port from properties, said properties comprising the utilization made by a user of each input and output port (Appeal Brief, pages 13 – 19).

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 23 – 27, 29 -33, and 35 – 46 are rejected under 35 USC 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps to be performed, a statutory process under 35 USC 101 must be tied to another statutory category (such as a manufacture or a machine) or transform underlying subject matter (such as an article or material) to a different state or thing. The steps in those claims can be performed manually without the use of a particular machine. Those claims could be interpreted as an interaction between two users, wherein inputs/outputs information are entered using different modalities. Thus, claims **13 – 27, 29 -33, and 35 – 44** do not define a statutory process.

Claim Rejections - 35 USC § 103

4.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

5.   Claims 1 –5, 7 - 11, 13 – 27, 29 - 33, 35 – 46 are rejected under 35 U.S.C.

103(a) as being unpatentable over Coffman et al., (US PAP 2003/0005174) in view of

Gergic et al., (US PAP 2003/0046316).

        As per claims 1, and 23, Coffman et al., teach an interactive dialogue that

comprises:

        at least one input port; two or more output ports ("converts the abstract output

event into one or more modalities for presentation to the user"; paragraph 22, lines 6 –

8; paragraph 60, lines 9 – 12);

        means for processing input responses to determine the semantic meaning

thereof (paragraph 94, line 5);

        and control means for determining a suitable output prompt to be output from at

least one of said output ports in response to a received input response ("sending output

events to the appropriate engine"; paragraph 102, lines 4 – 7; paragraph 153);

        wherein said output ports are respectively arranged to output prompts of different

types ("pen recognition, speech recognition, TTS"; paragraph 153);

        a first store storing input and output type data indicative of one or more

properties of the input and output ports and/or the input responses and output prompts

communicated there through ("**The DMA will also manage the output of these

methods by passing it to the appropriate components for processing, using an**

**algorithm string, similar to the algorithm string used for input handling (as
described below), to control the response processing and generation by the
appropriate engines... the algorithm string may comprise: front end+speech
recognition+NLU. If the user input is a typed command, the algorithm string may
be just NLU, etc**"; paragraphs 53, and 60);

wherein said input and output type data is updated when: i) any of said one or
more properties change; and/or ii) output prompts are sent; and/or iii) input responses
are received ("**The DMA will also manage the output of these methods by passing
it to the appropriate components for processing, using an algorithm string,
similar to the algorithm string used for input handling (as described below), to
control the response processing and generation by the appropriate engines...**if
the user input comprises spoken utterances (voice command), **the algorithm string
may comprise: front end+speech recognition+NLU. If the user input is a typed
command, the algorithm string may be just NLU, etc**"; paragraphs 53, and 60).

However, Coffman et al., do not specifically teach wherein one of said properties
is the utilization made by a user of each input and output port; and means for
establishing from said properties for each of said input and output ports a user
preference value.

Gergic et al., disclose that NL is a statement which is not limited to speech but
encompasses **all aspects of a natural multi-modal conversational application.** It
combines NL inputs with natural multi-modal input...**any input is modeled
independently of the modality as an input/output event that is then processed by**

**a dialog manager and arbitrator that will use history, dialog context and other
meta-information (e.g., user preference, information about the device and
application) to determine the target of the input event and/or engage a dialog with
the user to complete, confirm, correct or disambiguate he intention of the user
prior to executing the requested action** (paragraph 23).

Therefore, it would have been obvious to ordinary skill in the art at the time the
invention was made to determine inputs/outputs' user preference as taught by Gergic et
al., in Coffman et al., so that multiple user interfaces, e.g., GUI, speech, etc., are
synchronized and continuously updated as a user interactively proceeds with one or the
other modality (paragraph 21, last four lines).

As per claims 2, and 24, Coffman et al., teach an interactive dialogue that
comprises:

two or more input ports; at least one output port ("voice command, and typed
command"; paragraph 60; paragraph 22);

means for processing input responses received at one or more of said input ports
to determine the semantic meaning thereof(paragraph 94, line 5);

and control means for determining a suitable output prompt to be output from at
least one of said output ports in response to a received input response ("sending output
events to the appropriate engine"; paragraph 102, lines 4 – 7; paragraph 153);

wherein said input ports are respectively arranged to receive input responses of different types ("voice command, and typed command"; paragraph 60); the apparatus and method further comprising

a first store storing input and output type data indicative of one or more properties of the input and output ports and/or the input responses and output prompts communicated there through ("**The DMA will also manage the output of these methods by passing it to the appropriate components for processing, using an algorithm string, similar to the algorithm string used for input handling (as described below), to control the response processing and generation by the appropriate engines... the algorithm string may comprise: front end+speech recognition+NLU. If the user input is a typed command, the algorithm string may be just NLU, etc**"; paragraphs 53, and 60**)**;

wherein said input and output type data is updated when: i**)** any of said one or more properties change; and/or ii**)** output prompts are sent; and/or iii**)** input responses are received ("**The DMA will also manage the output of these methods by passing it to the appropriate components for processing, using an algorithm string, similar to the algorithm string used for input handling (as described below), to control the response processing and generation by the appropriate engines...**if the user input comprises spoken utterances (voice command), **the algorithm string may comprise: front end+speech recognition+NLU. If the user input is a typed command, the algorithm string may be just NLU, etc**"; paragraphs 53, and 60).

However, Coffman et al., do not specifically teach wherein one of said properties is the utilization made by a user of each input and output port; and means for establishing from said properties for each of said input and output ports a user preference value.

Gergic et al., disclose that NL is a statement which is not limited to speech but encompasses **all aspects of a natural multi-modal conversational application.** It combines NL inputs with natural multi-modal input…**any input is modeled independently of the modality as an input/output event that is then processed by a dialog manager and arbitrator that will use history, dialog context and other meta-information (e.g., user preference, information about the device and application) to determine the target of the input event and/or engage a dialog with the user to complete, confirm, correct or disambiguate he intention of the user prior to executing the requested action** (paragraph 23).

Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to determine inputs/outputs' user preference as taught by Gergic et al., in Coffman et al., so that multiple user interfaces, e.g., GUI, speech, etc., are synchronized and continuously updated as a user interactively proceeds with one or the other modality (paragraph 21, last four lines).

As per claims 3 and 25, Coffman et al., in view of Gergic et al., further disclose at least one additional output port, wherein said control means is further arranged to determine a suitable output prompt to be output from at least one of said output ports in

response to a received input response ("sending output events to the appropriate

engine"); and wherein said output ports are respectively arranged to output prompts of

different types (Coffman et al., "pen recognition, speech recognition, TTS"; paragraph

102, lines 4 – 7; paragraph 153).

     As per claims 4 and 26, Coffman et al., in view of Gergic et al., further disclose

that for any particular received input prompt, output prompts which are semantically

synonymous ("semantic meaning") or which mutually contribute towards a single

semantic message independent of type are output from two or more of the output ports

(Coffman et al., "converts the abstract output event into one or more modalities for

presentation to the user"; paragraph 94, line 5; paragraph 22, lines 6 – 8).

     As per claims 5 and 27, Coffman et al., in view of Gergic et al., further disclose

that each input or output port is adapted to connect to one or more input or output

devices via respective device gateways (Coffman et al., "input and output devices";

paragraph 172; paragraph 101, line 2).

     As per claims 7, and 29, Coffman et al., in view of Gergic et al., further disclose

that one of said properties is the connection of appropriate input or output devices to

each of said input or output ports (Coffman et al., "properties includes the resources the

application needs for processing the user input"; paragraph 60).

As per claims 8, and 30, Coffman et al., in view of Gergic et al., further disclose

that one of said properties is user preference value for each of said input and output

ports (Gergic et al., **"a dialog manager and arbitrator that will use history, dialog**

context and other meta-information (e.g., user preference, information about the

device and application) to determine the target of the input event and/or engage a

dialog with the user to complete, confirm, correct or disambiguate he intention of

the user prior to executing the requested action"; paragraph 23).

As per claims 9, and 31, Coffman et al., in view of Gergic et al., further disclose

that one of said properties is device property data of input or output devices connected

to said input or output ports (Coffman et al.,"voice command and typed command";

paragraph 60, lines 9 – 12).

As per claims 10 and 32, Coffman et al., in view of Gergic et al., further disclose

that one of said properties is implementation data indicative of: whether an output

prompt has been implemented in each output prompt type and/or input parse rules for

each input response type (Coffman et al., "NLU parse tree…and data associated with a

NLU process"; paragraph 103, lines 1 – 4; paragraph 122).

As per claims 11 and 33, Coffman et al., in view of Gergic et al., further disclose

that one of said properties is type-supported data indicative of whether the apparatus is

capable of receiving and/or outputting input responses and/or output prompts of each

type (Coffman et al., "converts the abstract output event into one or more modalities for

presentation to the user"; paragraph 22).

As per claims 13, and 35, Coffman et al., in view of Gergic et al., further disclose

that the update of said data comprises instantiating new data structures ("hierarchical

tree structure") to store the values of said changed properties, and storing said previous

data to give a historical record of said data (Coffman et al.,"transaction history";

paragraph 13, line 7; paragraph 64, lines 1 – 4).

As per claims 14, and 36, Coffman et al., in view of Gergic et al., further disclose

that said input and output type data further includes timing data indicative of the timings

of changes in said one or more properties (Coffman et al., "time stamped"; paragraph

163).

As per claims 15, and 37, Coffman et al., in view of Gergic et al., further disclose

that said input and output type data comprises a single data entry for each input and

output type, the value taken by a particular data entry being dependent on previous

values of any one or more of that or other data entries (Coffman et al., "top scoring

query result"; paragraphs 66, and 122).

As per claims 16, and 38, Coffman et al., in view of Gergic et al., further disclose

a second store data defining a dialogue to be held with a user, and dialogue

progression conditions which must be met to allow a user to progress through the

dialogue, at least some of said conditions involving the stored input and output type

data (Coffman et al., "for any given user input, arbitration mechanism will determine the

target DMA instance managing the associated sub-dialog"; paragraphs 48, 49, and 59).

As per claims 17, and 39, Coffman et al., in view of Gergic et al., further disclose

a second store storing data defining a dialogue model comprising an initial state, a

plurality of subsequent states, possible transitions between said states, and for each

transition at least one associated condition to be satisfied before that transition is

deemed allowable, at least some of said conditions involving the stored input and output

type data (Coffman et al.,"hierarchical tree structure that contains root, parent and

children nodes"; paragraph 13; paragraph 49).

As per claims 18, and 40, Coffman et al., in view of Gergic et al., further disclose

that the second store comprises a plurality of distributed storage media (Coffman et al.,

"multimedia streams"; paragraph 104, line 15)

As per claims 19, and 41, Coffman et al., in view of Gergic et al., further disclose

port control means for controlling the connections of input or output devices to said input

or output ports in response to the stored input and output type data (Coffman et al., "a

mechanism for sending output events to the appropriate engine"; paragraph 153, lines 4

– 6).

As per claims 20, and 42, Coffman et al., in view of Gergic et al., further disclose means for generating output prompts ("compose prompts"), said means being operable to generate output prompts adapted for particular output ports in dependence on the stored input and output type data (Coffman et al., "a mechanism for sending output events to the appropriate engine"; paragraph 102, lines 4 – 7; paragraph 153, lines 4 – 6).

As per claims 21, and 43, Coffman et al., in view of Gergic et al., further disclose that first store comprises a plurality of distributed storage media each logically interconnected (Coffman et al., "multimedia streams"; paragraph 104, line 15).

As per claims 22, and 44, Coffman et al., in view of Gergic et al., further disclose that the different types of output prompts or input responses comprise audio prompts or responses, or visual prompts or responses, or motor prompts or responses, in any combination thereof (Coffman et al., "text-to-display or prompt is provided"; paragraph 166, lines 17, and 18).

As per claim 45, and 46, Coffman et al., in view of Gergic et al., further disclose that a computer program or suite of programs so arranged such that when loaded into a computer it or they renders the computer an apparatus according to claims 1, and 23 (Coffman et al., paragraph 180).

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see PTO-892 Form.

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEONARD SAINT CYR whose telephone number is (571) 272-4247. The examiner can normally be reached on Mon- Friday.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

        Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or (571) 272-1000.

LS
11/19/09

/Richemond Dorvil/

Supervisory Patent Examiner, Art Unit 2626